

MATIAS DERMOND

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PROFESSIONAL SUMMARY

Mechanical Engineer operating at the intersection of product development, validation, and cross-functional execution. Experienced in leading technical initiatives across automotive and startup environments and translating complex engineering work into aligned stakeholder outcomes.

EDUCATION

Northeastern University, College of Engineering – Boston, MA

May 2024

Bachelor of Science in Mechanical Engineering (magna cum laude)

Honors: Dean's Scholarship GPA: 3.79

TECHNICAL EXPERIENCE

Husco Automotive – Advanced Transmissions – Waukesha, WI

August 2024 – Present

Design Engineer

- Developed multi-physics co-simulation workflow for rapid component optimization, enabling faster design iteration and more informed product decisions.
- Managed end-to-end thermal press-fit optimization that eliminated a component from assembly, reducing cost and simplifying manufacturing complexity.
- Executed articulation dyno testing and design of experiment studies to isolate root causes of unwanted component behaviors
- Led customer-facing specification review discussions, aligning technical requirements with design constraints and internal development plans.
- Presented validation results and design recommendations in executive and customer reviews for clear decision-driving insights

Tatum Robotics – Mass Robotics – Boston, MA

April 2023 – May 2024

Mechanical Engineer and Team Lead

- Led project planning and coordination using Trello, driving milestone tracking, meeting cadence, and on-time prototype delivery.
- Collaborated on custom PCBs for Bluetooth, Wi-Fi, and LoRa communication in battery-powered devices.
- Executed rapid prototyping to validate proof-of-concept, ensuring the feasibility and functionality of product designs.

Traverso Lab – BWH/MIT/HMS – Cambridge, MA

January 2023 - June 2023

Mechanical Engineering Research Coop

- Contributed to the development and evaluation of a drug-polymer matrix fabrication method, performing HPLC and in vitro testing to assess release performance and material stability.
- Supported device development activities, including prototyping, fabrication process refinement, and experimental validation.
- Collaborated with a clinical stakeholder to advance a novel drug delivery concept from early design through preliminary testing.
- Managed vendor coordination and equipment procurement to expand lab fabrication capabilities, supporting successful grant approval.

Droplette Inc. – Boston, MA

January 2022 - June 2022

Mechanical Engineering Research and Development Coop

- Designed an automated flowrate testing system, reducing evaluation time by ~30%.
- Conducted root cause analysis influencing next-generation design improvements.
- Collaborated with vendors and manufacturing teams on production tooling.

Generate Product Development Studio – Boston, MA

December 2021 - May 2023

Hardware Engineer and Project Lead

- Led hardware developments initiatives for early-stage clients, translating concepts into validated, manufacturable products.
- Delivered assistive wearable device and industrial automation system, including a 100+ part machine that increased client production capacity by 200%.
- Contributed to mechanical design of AR consumer hardware, iterating mechanisms to enhance usability and performance.

General Electric Co. – Aerospace – Rutland, VT

January 2021 - June 2021

Lab Technician & Supply Chain Coop

- Supported quality initiatives through metallurgical testing and material validation of turbine engine components.
- Contributed to cross-functional Lean improvement initiative (Lean Action Workout), identifying root causes of process inefficiencies and implementing quick-turn actions that improved workflow and safety standards.

SKILLS & INTERESTS

Project & Product: Agile Fundamentals, Project Planning, Cross-Functional Coordination, Technical Presentation, Rapid Prototyping

Process & Quality: Six Sigma Yellow Belt, Design of Experiments (DOE), Root Cause Analysis, Continuous Improvement

Technical Foundation: Multi-Physics Simulation, Experimental Validation, GD&T, Design for Manufacturing (DFM)

Software: ANSYS Mechanical & Maxwell, SolidWorks, Fusion 360, Creo Parametric, Asana, Trello, Arduino